



U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X

IDAHO OPERATIONS OFFICE
422 WEST WASHINGTON STREET
BOISE, IDAHO 83702

VC: Wcs 7/5/90
na

June 26, 1990

MEMORANDUM

SUBJECT: N.P.D.E.S. Compliance Inspection - Cyprus
Thompson Creek Mining Co. ID-002540-2

FROM: Gordon Hopson *GH*

TO: Don Gibbins

On May 29, 1990, an N.P.D.E.S. Compliance Inspection was conducted on the Cyprus Thompson Creek Mine ID-002540-2. Bert Doughty, Supervisor of Environmental Affairs, accompanied me throughout the inspection.

The inspection and sampling began at 11:15 a.m.

Besides sampling for compliance from outfalls 001, 002, and 003, the pit dewatering was of prime importance.

Last year the water in the pit was being divided, half of the pumped flow was going to the tailings pond and half to the Pat Hughes Dump, this flow was reaching Pat Hughes Creek above the settling ponds. Last year we strongly recommended that Cyprus discontinue the practice of pumping the pit water to the Pat Hughes Creek Dump. Shortly after receiving our letter, Cyprus increased the pipeline size from 4 to 8 inches going to the tailings pond and disconnected the pipeline that discharged to the Pat Hughes Creek Dump. Presently all pit water is discharged to the tailings pond.

The pit is presently making 200 GPM. The water in the pit is estimated to be 2 acres in size, 25' deep, and 26,000,000 gallons in total volume.

Mr. Doughty told me that they had only recently started to pump the pit water and that he thought pumping would be continuous from now on.

The pH of the pit water in November was 7.0 - 7.1, however, about May 1 the pH dropped to 3.3 and has remained there. Apparently, the buffering action of the rock had run out.

Cyprus plans to increase the depth of the pit by 800 to 900 feet. Present plans for dewatering call for all pit water to be discharged into the tailing pond. How much more water they will make per minute while going deeper is anyone's guess, however, it will increase and this could be a problem. I asked Bert to keep us informed.

Turbidity above and below 003 discharge was done in the field. Both samples read out at 2.2 N.T.N.u.

Samples for heavy metal and suspended solid analysis were collected from 001 and 002 discharges and taken to the Idaho State Laboratory in Boise to be analyzed.

Mr. Doughty had several questions which were:

1. Why are spiked samples so much higher than permit requirements? He also would like to have all metals included in the spiked sample, not just one or two.
2. Would a storm water runoff permit be needed if storm water never reached the creek?

Inspection was completed at 15:45 p.m.

2321B

CYPRUS THOMPSON CREEK MINING
05/29/90



NPDES Compliance Inspection Report

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

Section A: National Data System Coding

Transaction Code 1 N 2 5 NPDES 3 I 0 0 0 2 5 4 0 2 11 12 9 0 0 5 2 9 17 Inspection Type 18 5 Inspector 19 R Fac Type 20 2

Remarks

Reserved 67 69 Facility Evaluation Rating 70 BI 71 QA 72 -----Reserved----- 73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected

CYPRUS
P.O. Box 62
Clayton, Idaho 83227Entry Time ☐ AM ☒ PM1350

Permit Effective Date

8/1/88

Exit Time/Date

16:00 5/29/90

Permit Expiration Date

8/2/93

Name(s) of On-Site Representative(s)

Bert Doughty

Title(s)

Supervisor Environmental
Affairs

Phone No(s)

208-838-2200

Name, Address of Responsible Official

Pat Fitch

Title

General Manager

Phone No.

Contacted
☐ Yes ☒ No

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

<u>S</u>	Permit	<u>S</u>	Flow Measurement	<u>N</u>	Pretreatment	<u>S</u>	Operations & Maintenance
<u>S</u>	Records/Reports	<u>N</u>	Laboratory	<u>N</u>	Compliance Schedules	<u>N</u>	Sludge Disposal
<u>S</u>	Facility Site Review	<u>S</u>	Effluent/Receiving Waters	<u>S</u>	Self-Monitoring Program	<u>N</u>	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

Name(s) and Signature(s) of Inspector(s)

Sandra H. Hapner

Agency/Office/Telephone

E.P.A. / I 00/554-9395

Date

5/29/90

Signature of Reviewer

Agency/Office

Date

Regulatory Office Use Only

Regulatory Office Use Only

Action Taken

Date

Compliance Status

☐ Noncompliance
☐ Compliance

A. Permit Verification

<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	INSPECTION OBSERVATIONS VERIFY INFORMATION CONTAINED IN PERMIT
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	1. Correct name and mailing address of permittee.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	2. Facility is as described in permit.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	3. Notification has been given to EPA/State of new, different, increased discharges.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	4. Accurate records of influent volume are maintained, when appropriate.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	5. Number and location of discharge points are as described in the permit.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	6. Name and location of receiving waters are correct.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	7. All discharges are permitted.

B. Recordkeeping and Reporting Evaluation

<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	RECORDS AND REPORTS ARE MAINTAINED AS REQUIRED BY PERMIT
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	1. All required information is available, complete, and current; and
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	2. Information is maintained for required period.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	3. Analytical results are consistent with the data reported on the DMR's.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	4. Sampling and Analysis Data are adequate and include:
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	a. Dates, times, location of sampling
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	b. Name of individual performing sampling
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	c. Analytical methods and techniques
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	d. Results of analysis
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	e. Dates of analysis
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	f. Name of person performing analysis
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	g. Instantaneous flow at grab sample stations
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	5. Monitoring records are adequate and include
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	a. Flow, pH, D.O., etc. as required by permit
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	b. Monitoring charts
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	6. Laboratory equipment calibration and maintenance records are adequate.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	7. Plant Records are adequate* and include
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	a. O&M Manual
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	b. "As-built" engineering drawings
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	c. Schedules and dates of equipment maintenance and repairs
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	d. Equipment supplies manual
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	e. Equipment data cards
	*Required only for facilities built with Federal construction grant funds.

Records, Reports, and Schedules Check

Yes No <u>N/A</u>	8. Pretreatment records are adequate and include: a. Industrial Waste Ordinance (or equivalent documents) b. Inventory of industrial waste contributors, including: 1. Compliance records 2. User charge information
<u>Yes</u> No N/A	9. SPOC properly completed, when required.
Yes No <u>N/A</u>	10. Best Management Practices Program available, when required.

C. Compliance Schedule Status Review

YES NO <u>N/A</u>	THE PERMITTEE IS MEETING THE COMPLIANCE SCHEDULE
Yes No N/A	1. The permittee has obtained necessary approvals to begin construction.
Yes No N/A	2. Financing arrangements are complete.
Yes No N/A	3. Contracts for engineering services have been executed.
Yes No N/A	4. Design plans and specifications have been completed.
Yes No N/A	5. Construction has begun.
Yes No N/A	6. Construction is on schedule.
Yes No N/A	7. Equipment acquisition is on schedule.
Yes No N/A	8. Construction has been completed.
Yes No N/A	9. Start-up has begun.
Yes No N/A	10. The permittee has requested an extension of time.
Yes No N/A	11. The permittee has met compliance schedule.

Records, Reports, and Schedules Checklist

D. POTW Pretreatment Requirements Review

YES NO N/A	THE FACILITY IS SUBJECT TO PRETREATMENT REQUIREMENTS
	1. Status of POTW Pretreatment Program
Yes No N/A	a. The POTW Pretreatment Program has been approved by EPA. (If not, is approval in progress? _____)
Yes No N/A	b. The POTW is in compliance with the Pretreatment Program Compliance Schedule. (If not, note why, what is due, and intent of the POTW to remedy)
	2. Status of Compliance with Categorical Pretreatment Standards.
Yes No N/A	a. How many industrial users of the POTW are subject to Federal or State Pretreatment Standards?
Yes No N/A	b. Are these industries aware of their responsibility to comply with applicable standards?
Yes No N/A	c. Have baseline monitoring reports (403.12) been submitted for these industries?
Yes No N/A	i. Have categorical industries in noncompliance (on RMR reports) submitted compliance schedules?
Yes No N/A	ii. How many categorical industries on compliance schedules are meeting the schedule deadlines? _____
Yes No N/A	d. If the compliance deadline has passed, have all industries submitted 90 day compliance reports?
Yes No N/A	e. Are all categorical industries submitting the required semiannual report?
Yes No N/A	f. Are all new industrial discharges in compliance with new source pretreatment standards?
Yes No N/A	g. Has the POTW submitted its annual pretreatment report?
Yes No N/A	h. Has the POTW taken enforcement action against noncomplying industrial users?
Yes No N/A	i. Is the POTW conducting inspections of industrial contributors?
Yes No N/A	3. Are the industrial users subject to Prohibited Limits (403.5) and local limits more stringent than EPA in compliance? (If not, explain why, including need for revision of limits.)

Facility Site Review Checklist

Yes No N/A	1. Standby power or other equivalent provision is provided.
Yes No N/A	2. Adequate alarm system for power or equipment failures is available.
Yes No N/A	3. POTW handles and disposes of sludge according to applicable Federal, State, and local regulations.
Yes No N/A	4. All treatment units, other than back-up units, are in service.
Yes No N/A	5. Procedures for facility operation and maintenance exist.
Yes No N/A	6. Organization plan (chart) for operation and maintenance is provided.
Yes No N/A	7. Operating schedules are established.
Yes No N/A	8. Emergency plan for treatment control is established.
Yes No N/A	9. Operating management control documents are current and include:
Yes No N/A	a. Operating report
Yes No N/A	b. Work schedule
Yes No N/A	c. Activity report (time cards)
Yes No N/A	10. Maintenance record system exists and includes:
Yes No N/A	a. As-built drawings
Yes No N/A	b. Shop drawings
Yes No N/A	c. Construction specifications
Yes No N/A	d. Maintenance history
Yes No N/A	e. Maintenance costs
Yes No N/A	11. Adequate number of qualified operators are on-hand.
Yes No N/A	12. Established procedures are available for training new operators.
Yes No N/A	13. Adequate spare parts and supplies inventory and major equipment specifications are maintained.
Yes No N/A	14. Instruction files are kept for operation and maintenance of each item of major equipment.
Yes No N/A	15. Operation and maintenance manual is available.
Yes No N/A	16. Regulatory agency was notified of by-passing. (Dates _____)

Facility Site Review Checklist

Yes <input checked="" type="radio"/> No <input type="radio"/> N/A <input type="radio"/>	<p>17. Hydraulic and/or organic overloads are experienced.</p> <p>Reasons for overloads _____</p> <p>_____</p> <p>_____</p> <p>_____</p>
Yes <input checked="" type="radio"/> No <input type="radio"/> N/A <input type="radio"/>	18. Up-to-date equipment repair records are maintained.
Yes <input checked="" type="radio"/> No <input type="radio"/> N/A <input type="radio"/>	19. Dated tags show out of service equipment.
Yes <input checked="" type="radio"/> No <input type="radio"/> N/A <input type="radio"/>	20. Routine and preventive maintenance are scheduled/performed on time.

Permittee Sampling Inspection Checklist

A. Permittee Sampling Evaluation

Yes No N/A	1. Samples are taken at sites specified in permit.
Yes No N/A	2. Locations are adequate for representative samples.
Yes No N/A	3. Flow proportioned samples are obtained where required by permit.
Yes No N/A	4. Sampling and analysis completed on parameters specified by permit.
Yes No N/A	5. Sampling and analysis done in frequency specified by permit.
Yes No N/A	6. Permittee is using method of sample collection required by permit. Required Method: <u>Grab</u> If not, method being used is: <input checked="" type="checkbox"/> Grab () Manual composite () () Automatic composite
Yes No N/A	7. Sample collection procedures are adequate:
Yes No N/A	a. Samples refrigerated during compositing
Yes No N/A	b. Proper preservation techniques used
Yes No N/A	c. Containers and sample holding times before analyses conform with 40 CFR 136.3
Yes No N/A	8. Monitoring and analyses are performed more often than required by permit. If so, results reported in permittee's self-monitoring report.

B Sampling Inspection Procedures and Observations

Yes No N/A	1. Grab samples obtained.
Yes No N/A	2. Composite sample obtained Compositing frequency _____ Preservation _____
Yes No N/A	3. Sample refrigerated during compositing.
Yes No N/A	4. Flow proportioned sample obtained.
Yes No N/A	5. Sample obtained from facility sampling device.
Yes No N/A	6. Sample representative of volume and nature of discharge.
Yes No N/A	7. Sample split with permittee.
Yes No N/A	8. Chain of custody procedures employed.

A. Flow Measurement Inspection Checklist - General

Yes	No	N/A	1. Primary flow measuring device is properly installed and maintained.
Yes	No	N/A	2. Flow records are properly kept.
Yes	No	N/A	3. Sharp drops or increases in flow values are accounted for.
Yes	No	N/A	4. Actual flow discharged is measured.
Yes	No	N/A	5. Influent flow is measured before all return lines.
Yes	No	N/A	6. Effluent flow is measured after all return lines.
Yes	No	N/A	7. Secondary instruments (totalizers, recorders, etc.) are properly operated and maintained.
Yes	No	N/A	8. Spare parts are stocked.

B. Flow Measurement Inspection Checklist - Flumes

Yes	No	N/A	1. Flow entering flume appears reasonably well distributed across the channel and free of turbulence, boils, or other distortions.
Yes	No	N/A	2. Cross-sectional velocities at entrance are relatively uniform.
Yes	No	N/A	3. Flume is clean and free of debris or deposits.
Yes	No	N/A	4. All dimensions of flume are accurate.
Yes	No	N/A	5. Side walls of flume are vertical and smooth.
Yes	No	N/A	6. Sides of flume throat are vertical and parallel.
Yes	No	N/A	7. Flume head is being measured at proper location.
Yes	No	N/A	8. Measurement of flume head is zeroed to flume crest.
Yes	No	N/A	9. Flume is of proper size to measure range of existing flow.
Yes	No	N/A	10. Flume is operating under free-flow conditions over existing range of flows.

C. Flow Measurement Inspection Checklist - Weirs

			1. What type of weir is being used?
Yes	No	N/A	2. The weir is exactly level.
Yes	No	N/A	3. The weir plate is plumb and its top edges are sharp and clean.
Yes	No	N/A	4. There is free access for air below the nappe of the weir.
Yes	No	N/A	5. Upstream channel of weir is straight for at least four times the depth of water level, and free from disturbing influences.
Yes	No	N/A	6. The stilling basin of the weir is of sufficient size and clear of debris.
Yes	No	N/A	7. Head measurements are properly made by facility personnel.
Yes	No	N/A	8. Proper flow tables are used by facility personnel.

D. Flow Measurement Inspection Checklist - Other Flow Devices

			1. Type of flowmeter used: _____
			2. What are the most common problems that the operator has had with the flowmeter?
			3. Measured Wastewater flow: _____ mgd; Recorded flow: _____ mgd; Error _____ %
			4. Design flow: _____ mgd.
Yes	No	N/A	5. Flow totalizer is properly calibrated.
			6. Frequency of routine inspection by proper operator: _____/day.
			7. Frequency of maintenance inspections by plant personnel: _____/year.
			8. Frequency of flowmeter calibration: _____/month.
Yes	No	N/A	9. Flow measurement equipment adequate to handle expected ranges of flow rates.
Yes	No	N/A	10. Venturi meter is properly installed and calibrated.
Yes	No	N/A	11. Electromagnetic flowmeter is properly calibrated.

Laboratory Quality Assurance Checklist

A. General

<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	1. Written laboratory quality assurance manual is available.
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B. Laboratory Procedures

<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	1. EPA approved analytical testing procedures are used.
<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	2. If alternate analytical procedures are used, proper approval has been obtained.
<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	3. Calibration and maintenance of instruments and equipment is satisfactory.
<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	4. Quality control procedures are used.
<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	5. Quality control procedures are adequate.
	6. Duplicate samples are analyzed ____ % of time.
	7. Spiked samples are used ____ % of time.
<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	8. Commercial laboratory is used Name <u>ACZ Laboratories Inc</u> Address <u>1475 Pine Grove Rd Suite 109</u> Contact <u>Steamboat Springs, Colo. 80487</u> Phone _____

C. Laboratory Facilities and Equipment

Yes No N/A	1. Proper grade distilled water is available for specific analysis.
Yes No N/A	2. Dry, uncontaminated compressed air is available.
Yes No N/A	3. Fume hood has enough ventilation capacity.
Yes No N/A	4. The laboratory has sufficient lighting.
Yes No N/A	5. Adequate electrical sources are available.
Yes No N/A	6. Instruments/equipment are in good condition.
Yes No N/A	7. Written requirements for daily operation of instruments are available.

C. Laboratory Facilities and Equipment (continued)

Yes No N/A	8. Standards are available to perform daily check procedure.
Yes No N/A	9. Written trouble-shooting procedures for instruments are available.
Yes No N/A	10. Schedule for required maintenance exists.
Yes No N/A	11. Proper volumetric glassware is used.
Yes No N/A	12. Glassware is properly cleaned.
Yes No N/A	13. Standard reagents and solvents are properly stored.
Yes No N/A	14. Working standards are frequently checked.
Yes No N/A	15. Standards are discarded after recommended shelf life has expired.
Yes No N/A	16. Background reagents and solvents run with every series of samples.
Yes No N/A	17. Written procedures exist for cleanup, hazard response methods, and applications of correction methods for reagents and solvents.
Yes No N/A	18. Gas cylinders are replaced at 100-200 psi.

D. Laboratory's Precision, Accuracy, and Control Procedures

Yes No N/A	1. A minimum of seven replicates is analyzed for each type of control check and this information is on record.
Yes No N/A	2. Plotted precision and accuracy control charts are used to determine whether valid, questionable, or invalid data are being generated from day to day.
Yes No N/A	3. Control samples are introduced into the train of actual samples to ensure that valid data are being generated.
Yes No N/A	4. The precision and accuracy of the analyses are good.

E. Data Handling and Reporting

Yes No N/A	1. Round-off rules are uniformly applied.
Yes No N/A	2. Significant figures are established for each analysis
Yes No N/A	3. Provision for cross-checking calculation is used
Yes No N/A	4. Correct formulas are used to reduce to simplest factors for quick, correct calculation
Yes No N/A	5. Control chart approach and statistical calculations for quality assurance and report are available and followed
Yes No N/A	6. Report forms have been developed to provide complete data documentation and permanent records and to facilitate data processing
Yes No N/A	7. Data are reported in proper form and units.
Yes No N/A	8. Laboratory records are kept readily available to regulatory agency for required period of time
Yes No N/A	9. Laboratory notebook or preprinted data forms are permanently bound to provide good documentation
Yes No N/A	10. Efficient filing system exists enabling prompt channeling of report copies

F. Laboratory Personnel

Yes No N/A	1. The analyst has appropriate training
Yes No N/A	2. The analyst follows the specified procedures
Yes No N/A	3. The analyst is skilled in performing analyses

Outfall	PERMIT REQUIREMENT	Minimum	Average	Maximum
001 mgd Flow	PERMIT REQUIREMENT			0.019 mgd N.A.
T.S.S.	SAMPLE MEASUREMENT			7.0
mg/L	PERMIT REQUIREMENT			30.0
T.A.S.	SAMPLE MEASUREMENT			<.010
mg/L	PERMIT REQUIREMENT			0.490
T.C.d	SAMPLE MEASUREMENT			0.001
mg/L	PERMIT REQUIREMENT			0.0053
T.Cu	SAMPLE MEASUREMENT			<0.010
mg/L	PERMIT REQUIREMENT			0.245
T.Pb	SAMPLE MEASUREMENT			<.005
mg/L	PERMIT REQUIREMENT			0.0589
T.Hg	SAMPLE MEASUREMENT			<.0005
mg/L	PERMIT REQUIREMENT			0.002
T.Hg	SAMPLE MEASUREMENT			0.009
	PERMIT REQUIREMENT			0.145
pH	SAMPLE MEASUREMENT			8.6
	PERMIT REQUIREMENT			6.0-9.0

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	VISIBLE FLOAT SOL	COLOR	OTHER
001	none	none	1.0 NTU	none	none	none	none
	--						--

(Sections M and N: Complete as appropriate for sampling inspections)

SECTION M - Sampling Inspection Procedures and Observations (Further explanation attached _____)

☒ GRAB SAMPLES OBTAINED
☐ COMPOSITE OBTAINED
☐ FLOW PROPORTIONED SAMPLE
☐ AUTOMATIC SAMPLER USED
☒ SAMPLE SPLIT WITH PERMITTEE
☒ CHAIN OF CUSTODY EMPLOYED
☐ SAMPLE OBTAINED FROM FACILITY SAMPLING DEVICE

COMPOSITING FREQUENCY _____ PRESERVATION a little of 3rd & 4th

SAMPLE REFRIGERATED DURING COMPOSITING: ☐ YES ☐ NO

SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE yes

Outfall 002		Minimum	Average	Maximum	
Flow MGD	PERMIT REQUIREMENT			0.160 N.A.	
T.S.S. mg/L	SAMPLE MEASUREMENT			5.0	
	PERMIT REQUIREMENT			30.0	
T.A.S. mg/L	SAMPLE MEASUREMENT			<0.010	
	PERMIT REQUIREMENT			0.490	
T. Cd mg/L	SAMPLE MEASUREMENT			<0.001	
	PERMIT REQUIREMENT			0.0053	
T. Cu mg/L	SAMPLE MEASUREMENT			<0.010	
	PERMIT REQUIREMENT			0.0245	
T. Hg mg/L	SAMPLE MEASUREMENT			0.0005	low as lab goes
	PERMIT REQUIREMENT			0.0002	
T. Zn mg/L	SAMPLE MEASUREMENT			0.016	
	PERMIT REQUIREMENT			0.165	
T. Pb mg/L	SAMPLE MEASUREMENT			<0.005	
	PERMIT REQUIREMENT			0.0589	
	SAMPLE MEASUREMENT			7.2	
P.H.	PERMIT REQUIREMENT			6.0-9.0	

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	VISIBLE FLOAT SOL	COLOR	OTHER
002	None	None	0.75	None	None	None	None
	--						--

(Sections M and N: Complete as appropriate for sampling inspections)

SECTION M - Sampling Inspection Procedures and Observations (Further explanation attached _____)

- ☒ GRAB SAMPLES OBTAINED
☐ COMPOSITE OBTAINED
☐ FLOW PROPORTIONED SAMPLE
☐ AUTOMATIC SAMPLER USED
☒ SAMPLE SPLIT WITH PERMITTEE
☒ CHAIN OF CUSTODY EMPLOYED
☐ SAMPLE OBTAINED FROM FACILITY SAMPLING DEVICE

COMPOSITING FREQUENCY _____

PRESERVATION

SAMPLE REFRIGERATED DURING COMPOSITING: ☐ YES ☐ NO

SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE

Chilled, 3mls Nitric Acid

YES

Outfall
003

	PERMIT REQUIREMENT	Squaw Creek Below Burno	Burno Creek Discharge to Squaw Creek	Squaw Creek Above Burno Creek Discharge	
NTU	SAMPLE MEASUREMENT	2.2	1.0	2.2	
Turbidity	PERMIT REQUIREMENT	N.A.	N.A.	N.A.	
	SAMPLE MEASUREMENT	7.7	6.9	7.4	
pH units	PERMIT REQUIREMENT	N.A.	N.A.	N.A.	
	SAMPLE MEASUREMENT		0.55		
Flow m3	PERMIT REQUIREMENT		N.A.		
	SAMPLE MEASUREMENT				
	PERMIT REQUIREMENT				
	SAMPLE MEASUREMENT				
	PERMIT REQUIREMENT				
	SAMPLE MEASUREMENT				
	PERMIT REQUIREMENT				
	SAMPLE MEASUREMENT				
	PERMIT REQUIREMENT				

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	VISIBLE FLOAT SOL	COLOR	OTHER
003	none	none	.28	none	none	none	none
	--						--

(Sections M and N: Complete as appropriate for sampling inspections)

SECTION M - Sampling Inspection Procedures and Observations (Further explanation attached _____)

- ☒ GRAB SAMPLES OBTAINED
- ☐ COMPOSITE OBTAINED
- ☐ FLOW PROPORTIONED SAMPLE
- ☐ AUTOMATIC SAMPLER USED
- ☐ SAMPLE SPLIT WITH PERMITTEE
- ☐ CHAIN OF CUSTODY EMPLOYED
- ☐ SAMPLE OBTAINED FROM FACILITY SAMPLING DEVICE

COMPOSITING FREQUENCY _____ PRESERVATION _____

SAMPLE REFRIGERATED DURING COMPOSITING: ☐ YES ☐ NO

SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE _____

CYPRUS THOMPSON CREEK
WATER QUALITY ANALYSIS
SAMPLE DATA SHEETS

Station: 001 Date Collected: 5/29/90 Time: 1407
 Air Temperature: _____ °C Weather: _____
 Conductivity: _____ umhos/cm at 25°C Sample Temp: _____ °C
 pH: 8.6 Turbidity: 1.0 NTU Staff Gauge: 0.17 Flow: 0.03 cfs
 Person Conducting Sampling: Bert Dougherty Signed _____
 Date Samples Mailed to Lab: _____ Time: _____

Analysis Group	Parameters to be tested		Preservative Added	Collected		Sample Size
				Yes	No	
Physical Properties Cations & Anions	TSS Alkalinity Hardness Calcium Chloride Magnesium	Potassium Silica Sodium Sulfate Sulfide TDS	None	X		1/2 L
Nutrients and Organics	Nitrogen-TKN - Nitrate - Nitrite - Ammonia	Phosphate Carbon-TOC	Sulfuric Acid (H ₂ SO ₄)			
Other Nutrients	BOD COD		None			
Biological	Total Coliform Bacteria Fecal Coliform Bacteria		Sodium Thiosulfate			
Trace Metals	Aluminum Arsenic Barium Cadmium Chromium Cobalt Copper Iron	Lead Manganese Mercury Molybdenum Nickel Selenium Silver Zinc	Nitric Acid (HNO ₃)			
Other Organics	Cyanide		Sodium Hydroxide (NaOH)			

Remarks: EPA split during compliance check

CYPRUS THOMPSON CREEK
WATER QUALITY ANALYSIS
SAMPLE DATA SHEETS

Station: 002 Date Collected: 5/29/30 Time: 1347
 Air Temperature: _____ °C Weather: Rain
 Conductivity: _____ umhos/cm at 25°C Sample Temp: _____ °C
 pH: 7.2 Turbidity: 0.75 NTU Staff Gauge: 0.40 Flow: 0.26 cfs
 Person Conducting Sampling: Dougherty Signed _____
 Date Samples Mailed to Lab: _____ Time: _____

Analysis Group	Parameters to be tested	Preservative Added	Collected		Sample Size
			Yes	No	
Physical Properties Cations & Anions	TSS Alkalinity Hardness Calcium Chloride Magnesium Potassium Silica Sodium Sulfate Sulfide TDS	None	X		Y2L
Nutrients and Organics	Nitrogen-TKN - Nitrate - Nitrite - Ammonia Phosphate Carbon-TOC	Sulfuric Acid (H ₂ SO ₄)			
Other Nutrients	BOD COD	None			
Biological	Total Coliform Bacteria Fecal Coliform Bacteria	Sodium Thiosulfate			
Trace Metals	Aluminum Arsenic Barium Cadmium Chromium Cobalt Copper Iron Lead Manganese Mercury Molybdenum Nickel Selenium Silver Zinc	Nitric Acid (HNO ₃)	X		Y2L
Other Organics	Cyanide -----	Sodium Hydroxide (NaOH)			

Remarks: EPA split for compliance monitoring